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RECOMBINANT MHC MOLECULES USEFUL FOR MANIPULATION OF ANTIGEN-SPECIFIC T-CELLS

ABSTRACT

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Two-domain MHC polypeptides useful for manipulation of antigen-specific T-cells are disclosed. These polypeptides include MHC class II-based molecules that comprise covalently linked $\beta 1$ and $\alpha 1$ domains, and MHC class I-based molecules that comprise covalently linked $\alpha 1$ and $\alpha 2$ domains. These polypeptides may also include covalently linked antigenic determinants, toxic moieties, and/or detectable labels. The disclosed polypeptides can be used to target antigen-specific T-cells, and are useful, among other things, to detect and purify antigen-specific T-cells, to induce or activate T-cells, and to treat conditions mediated by antigen-specific T-cells.